UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

3M INNOVATIVE PROPERTIES COMPANY and 3M COMPANY,	)	
Plaintiffs,	)	
vs.	)	**Civil No.: 09-cv-01594-ADM-FLN**
ENVISIONWARE, INC.,	)	
Defendant.	)	**DEFENDANT ENVISIONWARE, INC.'S OPENING CLAIM CONSTRUCTION BRIEF**

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I. INTRODUCTION[1]

3M asserts three patents[2], two of which apply the well-known field of radio-frequency identification (RFID) to the context of inventory management in a library setting. These two patents, the '870 patent and the '780 patent, relate to handheld RFID devices used by library staff members to perform inventory functions by scanning RFID tags embedded in library books. The third patent, the '568 patent, relates to self-service kiosk terminals that allow library patrons to perform library functions, including checking in and checking out books, paying fines, and receiving reminders as to the status of their library accounts.

In proffering its constructions for this *Markman* proceeding, EnvisionWare follows the basic canon of claim construction that requires claim terms to be construed based upon the intrinsic record. To the extent possible, EnvisionWare's constructions rely on the claims, patent specifications, and statements made by the patentee during prosecution to give the claims their appropriate scope as a person of skill in the art ("POSITA")[3] would have understood them at the time the applications were filed.

In contrast, 3M's constructions are motivated by its litigation objectives in this case. As a result, 3M has found itself caught between the proverbial "rock" and a "hard

[1] References to Exhibits herein, unless otherwise specified, refer to Exhibits to the Declaration of Nirav N. Desai filed herewith. Patent pin cites herein take the form x:y, where x is the column number and y is the line number.

[2] The asserted patents are U.S. Patent No. 6,857,568 ("the '568 patent"), U.S. Patent No. 6,232,870 ("the '870 patent"), U.S. Patent No. 6,486,780 ("the '780 patent," collectively, "the patents-in-suit") (attached as Exhibits A, B, and C, respectively).

[3] The concept of a POSITA is set forth in the Expert Declaration of William R. Bandy, Ph.D. ¶¶ 26-29.

place." On the one hand, 3M has come to realize through discovery that EnvisionWare's products do not infringe the patents-in-suit and, therefore, 3M must stretch the scope of the claims by, for example, repeatedly asking the Court to ignore the intrinsic evidence and simply rely upon the "plain meaning."

On the other hand, 3M is faced with the reality that, as issued, its patents are invalid in view of the prior art. Indeed, in on-going reexamination proceedings before the U.S. Patent and Trademark Office ("PTO"), Office Actions have already issued **rejecting all claims** of both the '568 patent and '780 patent.[4] In order to overcome the rejections of the '568 patent, 3M has been forced to respond with statements contrary to the constructions they now proffer before this Court. When 3M responds to the rejections of all claims in the '780 patent, 3M will again be unable to remain consistent with the sweepingly-broad constructions it has proposed here.

3M's attempt to divorce the language of the claims from the specification, prosecution history, and reexamination proceedings should be rejected and EnvisionWare's constructions should be adopted in their entirety.

II. APPLICABLE LAW

This Court is well versed with the basic tenets governing claim construction as set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). Therefore, relevant legal principles governing EnvisionWare's proposed constructions are recited below as applicable.

[4] The Office Actions in the reexamination proceedings of the '568 patent and the '780 patent are attached as Exhibit D and Exhibit E, respectively.

III. THE '568 PATENT

A. Background

The '568 patent is directed to self-service library terminals for use by library patrons in checking out materials, paying fines, and reviewing their account status. According to 3M, two novel features of the claimed self-service library terminals are a *"Fines and Fees"* feature and a *"Store and Forward"* feature. Ex. F, 3M's Answers to Defendant's First Set of Interrogatories (Nos. 1-15) at 19. The *Fines and Fees* feature, according to 3M, "allows a library patron to identify and/or pay fines or fees through a self-service terminal without assistance from the library staff." *Id.* The *Store and Forward* feature "allows a self-service terminal to store library transactions during times when the connection between the terminal and the library's computer network is down, and then forward the stored transaction information when the connection has been restored." *Id.*

3M has accused the OneStop All-In-One™ Series, OneStop™ Full-Service Kiosk, OneStop Self Check Out Kiosk, and EnvisionWare LiteCheck™ of infringing claims 6, 7, 8, 9, 15, 16, and 22 of the '568 patent. Each of these claims is an independent claim. For ease of reference, EnvisionWare has reproduced the asserted claims of the '568 patent at Exhibit G, with the disputed claim terms highlighted.

B. Disputed Terms - '568 Patent

1. "controller" as used in claims 6, 7, 8, 9, 15, 16, and 22	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
No construction is required; the term carries its plain and ordinary meaning. In the alternative, if the Court determines that a construction of "controller" is necessary, 3M proposes that the term "controller" be construed as: "*a device that receives, stores, processes, and/or provides information to various devices*."	*"a device that controls the operation of the recited elements of the self-service library terminal"*

a. EnvisionWare's construction relies on the express language of the claims

Each asserted claim of the '568 patent recites a "controller" arranged to control various functions of the self-service terminal as explicitly recited in the claims themselves. For example, claim 6 recites:

> 6. A self-service library terminal comprising:
>
> a reader ...;
>
> a payment apparatus…;
>
> a ***controller***, wherein the controller is arranged to process signals from the reader corresponding to the identifications read by the reader, wherein the ***controller*** is arranged to interact with the payment apparatus in order to process financial transactions related to the library loan transactions, and wherein the ***controller*** is arranged to remind the borrower of the borrower's account status; and,
>
> a display, wherein the ***controller*** is arranged to control the display in order to remind the borrower of an overdue book chargeable to the borrower, and wherein the ***controller*** is arranged to allow the borrower to continue a present loan transaction even though the borrower has not paid for overdue book.

See, e.g., Ex. A, '568 patent at claim 6. The language of the claims itself is clear that the claimed invention requires a controller that performs ***all*** of the recited functions.

EnvisionWare's construction is correct because it conveys the ordinary meaning of the term in view of the claims and the specification. In fact, the entire Summary of the Invention section of the '568 patent describes in detail the various components and functions that the controller must control as recited in the claims. *See, e.g., id.* at 2:18-19 ("The controller is arranged to control the code reader…"); *id.* at 2:22-23 ("the controller is arranged to process a signal from the code reader…"); *id.* at 2:29-31 ("The controller is arranged to control the code reader … and the controller is arranged to control the display…."); see also *id.* at 2:31 - 4:5.

Based on the patentee's own characterization of the invention, it is clear that the controller is *a device that controls the operation of the recited elements of the self-service library terminal.*

b. 3M's construction is contrary to the specification and to statements made to the PTO in the reexamination of the '568 patent.

3M so broadly construes this term — particularly by its use of "or" — as to render ***any*** component of a computer system a controller: a hard disk drive "receives information" and therefore would be a controller; a processor processes information and therefore would be a controller; a memory "provides information" and therefore would be a controller under 3M's proposed construction. In view of the Summary of the Invention section provided in the written description, as discussed above, such a broad

reading is contrary to the specific language in the claims and the specification which the patentee used to define "controller."

3M's definition is also directly contrary to the statements 3M has made in the reexamination of this patent before the PTO, which are relevant to determining claim scope. *See Cias, Inc. v. Alliance Gaming Corp.*, 504 F.3d 1356, 1362 (Fed. Cir. 2007) (affirming a finding that arguments made during reexamination constitute a disclaimer of claim scope). In the reexamination of the '568 patent occurring in parallel with these proceedings, the PTO issued an Office Action rejecting all 22 claims as invalid in view of the prior art. Ex. D, '568 Patent Reexamination Pros. Hist., June 30, 2010 Office Action. In an attempt to salvage the '568 patent in that proceeding, 3M's characterization of the "controller" element stands in stark contrast to the construction it proffers here.

Whereas here, 3M argues a controller could be any device that, e.g., "processes" or "provides" information, before the PTO, 3M asserts that even if prior art cited by the Examiner contains a processor, that processor would not constitute a controller as claimed in the '568 patent because the prior art does not teach:

> that this same processor … is arranged to interact with a cash station in order to process financial transaction related to the library loan transactions; that this processor … is arranged to remind a borrower of the borrower's account status; or that this processor … is arranged to control a display in order to remind a borrower that a loan is a chargeable loan.

Ex. H, '568 Patent Reexamination Pros. Hist., Aug. 30, 2010 3M Response, p. 3. That is, before the PTO, 3M advocates that a device in the prior art is not a controller ***unless*** it controls the components of the self-service kiosk to perform the recited functions, a

position that only supports EnvisionWare's proposed construction. Therefore, 3M's construction is incorrect.

2. "remind" as used in claims 6, 7, 8, 9, and 15	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
No construction is required; the term carries its plain and ordinary meaning. In the alternative, if the Court determines that a construction of "remind" is necessary, 3M proposes that the term "remind" be construed as: "*inform or alert*"	*"always alert a borrower to the recited information"*

A POSITA would understand the term "remind" to carry its customary and ordinary meaning in view of the intrinsic evidence. The plain language of the claim states that the controller must be "arranged to remind," meaning it is not enough for a borrower to be informed ***by chance*** of, for example, an overdue book chargeable to the borrower. Ex. A, '568 patent at claim 6 ("display, wherein the controller is arranged to control the display in order to ***remind*** the borrower of an overdue book chargeable to the borrower…"). Instead, a reminder in the context of the patent is a purposeful and consistent alert to the patron of an overdue book chargeable to the borrower.

To understand the use of the term in this claim, it is useful to consider the context of a reminder implemented in a computer system. A computer implemented reminder is triggered when a particular condition occurs: in the case of claim 6, for example, when there is an overdue book chargeable to the borrower, the claimed controller is arranged to remind the borrower of that information. In other words, unless a system reliably reminds a user of an event, it cannot be considered a reminder. This distinction is

important because there is a cause and effect relationship between the event and the reminder. Where a triggering event occurs, the reminder should be given. 3M's construction fails to capture the meaning of reminder because a user may be "inform[ed] or alert[ed]" to information by mere coincidence, but this is not a reminder because a reminder connotes an element of consistency.

3. "so that the loan transactions can be later transferred to the circulation system" as used in claims 9, 16, and 22

3M's Proposed Construction	EnvisionWare's Proposed Construction
No construction is required; the phrase carries its plain and ordinary meaning.	*"to transfer data to the circulation system over the link when the link is re-established"*

The disputed phrase is directed to the "Store and Forward" feature of the claimed invention. The relevant portion of exemplary claim 9 recites:

> A connector, wherein the connector is arranged to couple the self-service library terminal over a link to a circulation system, and wherein the controller is arranged to store loan transactions during periods when the link to the circulation system is down ***so that the loan transactions can be later transferred to the circulation system***.

Ex. A, '568 patent, claim 9 (emphasis added).

The dispute between the parties is whether the disputed phrase requires the later transfer of stored loan transactions to occur over the claimed link between the terminal and the library circulation system. EnvisionWare's construction adheres to the specification addressing this claim term, which makes clear that, "when the link … is down," transactions are stored "so that" they can "later be transferred" over the link when the link is back up. *Id.* Where it is clear from the intrinsic record that the inventive concept is narrower than the plain and ordinary meaning of the term conveys, the Court

should provide a construction that is consistent with the intrinsic evidence. Here, although the claims do not specify that the "later" transfer occurs over the link when the link is reestablished, it is clear from the intrinsic record that the patentee intended this claim element to cover the "Store and Forward" feature.

For example, the written description recites:

> During periods when the communication link 72 is down, the microprocessor 60 stores in the memory 62 any loan transaction information that is required to communicate to the data server 50 **so that** this loan transaction information can be later transferred to the data server 50 ***when the communication link 72 is back Up*** [sic].

Ex. A, '568 at 7:56-62 (emphasis added). The patentee's discussion of "known library self-service terminals" in the Background of the Invention section provides confirmation:

> Furthermore, known library self-service terminals have many other limitations. For example, … (ii) they do not store loan transaction information during periods when the communication link between the terminal and the main circulation system of the library is down ***so that this loan transaction information can be later transferred*** to the main circulation system ***when the communication link is back up*** …. The present invention is directed to a library terminal that solves one or more of the above noted problems

Id. at 1:63 - 2:11 (emphasis added). Thus, in distinguishing the claimed invention over the state of the prior art, the patentee specifically emphasized the feature of storing transactions while the link was down ***so that*** they could be later transferred when the link was back up.

The prosecution history also makes clear that the plain and ordinary meaning of the disputed phrase is too broad. During prosecution, the Examiner rejected this claim based on a prior-art reference that disclosed a "smaller library circulation system" having

a memory, which the Examiner analogized to a self-service library terminal that stored loan transactions. To overcome this rejection, the patentee argued that:

> there is no disclosure in the [prior-art reference] that loan transactions are ***transmitted*** elsewhere ***by*** the smaller library circulation system . . .. Accordingly, the [prior-art reference] does not disclose [the disputed claim limitation].

Ex. I, '568 Patent Pros. Hist., May 5, 2003 Response at 29 (emphasis added). The patentee, therefore, emphasized that it is not enough merely to store transactions in a memory in a way that allows for transfer by any means. Instead, the patentee distinguished its invention from the prior art because the claimed self-service library terminal actually transmits the transactions. Thus, the patentee's arguments during prosecution limit the claimed invention to terminals that store transactions and then later transmit those transactions over the link to the circulation system.

3M now seeks to capture what was "known" in the art: the simple act of storing data to the terminal. Indeed, the "plain and ordinary" meaning advocated by 3M could be interpreted so broadly that 3M will no doubt attempt to misuse it to encompass anything from transferring transactions by floppy disk to transfer by writing down transactions using pen and paper and walking them over to the circulation system for manual entry. In view of the intrinsic evidence, the state of the art at the time of the invention, and 3M's own allegations in this action, the plain and ordinary meaning cannot be correct.

IV. THE '870 AND '780 PATENTS

A. Background

The '870 and the '780 patents share a common specification. The specification, as written, relates to handheld RFID devices used by library staff members to perform inventory functions by scanning RFID tags embedded in library books. However, the claims of both cover only portable RFID devices, without any reference to the use of such devices in the library context. The claims of the '870 patent are specifically directed to methods of using portable RFID devices, and the claims of the '780 patent are directed to the portable RFID devices themselves.

RFID technology predates the '870 and '780 patents by at least three decades. Bandy Dec. ¶ 32. The integration of RFID into portable devices was also well known prior to the filing date of the '870 patent as evidenced by Patent No. 5,280,159 to Schultz *et al.*, which discloses a hand-held portable RFID device. *Id.*

3M has accused the use of EnvisionWare's LibraryPDA® as infringing claims 1, 2, 4, 6, 13, 14, and 15 of the '870 patent and claims 1, 2, 3, 4, 5, 6, 7, 11, and 17 of the '780 patent. For ease of reference, EnvisionWare has reproduced the asserted claims of the '870 patent at Exhibit K and the asserted claims of the '780 patent at Exhibit L, with the disputed claim terms highlighted.

B. Disputed Terms - '870 Patent

1. "an algorithm" as used in claim 6	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
"*data or a list corresponding to an organizational system or a method of sorting*"	*"a set of rules"*

Independent claim 6 recites the term "algorithm" in the following context: "comparing a description of the items obtained using the information obtained from the RFID elements to the algorithm to determine whether the scanned items are in the algorithm order." The dispute between the parties regarding this term centers on whether the term "algorithm" has its well-understood meaning as a set of rules, as EnvisionWare proposes, or the construction 3M proposes. Because the specification provides no explicit definition for the term "algorithm," EnvisionWare's construction, which reflects the well-understood meaning, is correct.

a. EnvisionWare's construction relies on the customary and ordinary meaning of "algorithm" and is consistent with the specification.

The term "algorithm" has a well-known meaning. An "algorithm" is a set of rules used to solve a problem. Indeed, the dictionary definition of "algorithm" reflects this well-known meaning. *See, e.g.*, Ex. L, *Webster's New World Dictionary of the Am. Language, 2d Coll. ed., 1982* (algorithm) ("any special method of solving a certain kind of problem"). Thus, EnvisionWare's construction of "an algorithm" as *a set of rules* accurately captures the customary and ordinary meaning of this term.

Further, the specification consistently uses "algorithm" in accordance with its well-known meaning. *See* Ex. B, '870 patent, 8:7-14 ("By using sophisticated software

algorithms, RFID readers and markers cooperate to insure that all items in the reader's interrogation zone are successfully identified without intervention by the operator."); 13:30-36 ("[A] group of items having RFID elements may be processed essentially simultaneously . . . by having a single high-speed RFID reader that possesses the multi-item identification algorithms."). In fact, the specification even characterizes "algorithm" as a "method":

> As input, the device has access to the shelving ***algorithm*** used by the library for the section being scanned. Possible ***algorithms*** include: Dewey Decimal order, Library of Congress order, and Author last name/Title order. Other ***methods*** of sorting, as determined by each library, are possible.

Id. at 17:21-26 (emphasis added). By listing possible "algorithms" and then immediately stating that other "methods" may also be used, the specification draws a parallel between algorithms and methods. Thus, the specification also supports EnvisionWare's construction of "an algorithm" as *a set of rules. See 3M Innovative Props. Co. v. Clorox Co.*, 2007 WL 4461206 at *5 (D. Minn. 2007) (Montgomery, A.) (accepting defendant's construction of the disputed term "mate" because defendant's construction was "consistent with the use of the term in the [patent-in-suit], and . . . consistent with the plain and ordinary meaning of the term").

b. 3M's construction seeks to correct a drafting error.

Claim 6 requires that an algorithm be ***compared*** to a description of items in order to determine whether those items are in a particular order. *See* Ex. B, '870 patent at claim 6 ("comparing a description of the items . . . to the algorithm to determine whether the

scanned items are in the algorithm order"). This requirement of claim 6, however, defies the well-known meaning of the term "algorithm." Rather than ***comparing*** an algorithm to a description of items (as claim 6 requires), an algorithm is ***executed*** (or applied) to determine whether a description of items is in a particular order. Thus, the well-known meaning of "algorithm" conflicts with claim 6 as drafted.

To correct this drafting error, 3M seeks to expand "algorithm" to include "data" or "a list" because, unlike an algorithm, data or a list may be compared to a description of items to determine whether those items are in a particular order. But the Federal Circuit "repeatedly and consistently has recognized that courts may not redraft claims, whether to make them operable or to sustain their validity." *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004). As in *Chef America*, the Court here should "construe the claim as written, not as the patentees wish they had written it." *Id.* Accordingly, this Court should reject 3M's construction and adopt EnvisionWare's construction of "an algorithm" as *a set of rules*.

2. "received signals" as used in claims 1, 2, and 4	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
No construction is required; the phrase carries its plain and ordinary meaning.	*"an electrical quantity or effect that can be varied in such a way as to convey information"*

The dispute between the parties centers around whether a construction of this term is required by the Court. At trial, the trier of fact is going to be faced with determining whether accused devices and the prior art "compar[e] the received signals to the information input to the device," as in claim 6. Because the term "received signals" is

barely described in the specification, construction of this term is necessary to provide clarity to the trier of fact and prevent later disputes. Therefore, clear definitional boundaries for "received signals" are essential.

The dictionary provides these clear boundaries. EnvisionWare's construction is taken nearly verbatim from the dictionary:

> **an electrical quantity or effect**~~, as current, voltage, or electromagnetic waves,~~ **that can be varied in such a way as to convey information.**

Ex. M, The Random House Dictionary, 2d ed., unabridged, 1987 (emphasis added). This definition accurately reflects how a POSITA would ordinarily interpret this term. Bandy Dec. ¶¶ 56-57. Nothing in the '870 patent suggests that the patentee provided the term "received signals" with a special meaning. *Id.* Indeed, each time the term "signal" is used in the written description it is used consistently with EnvisionWare's definition. *See* Ex. B, '870 patent, 5:19-37, 5:64-67, 6:7-9, 6:59 - 7:12.

Accordingly, the Court should adopt EnvisionWare's construction of "received signals" as *an electrical quantity or effect that can be varied in such a way as to convey information*.

3. "obtaining" as used in claims 13, 14, and 15	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
"*identifying, selecting, or acquiring an item in a manner to facilitate the input of information to the RFID device as to that item*"	*"gathering for interrogation"*

a. EnvisionWare's construction for "obtaining" relies on the patentee's use of the term in the specification.

The disputed term "obtaining" appears in the method of claim 13. To understand fully the steps of the claimed method, it is useful to illustrate the steps together with a real world example of how the claimed method is performed in every day library operations.

Element	Claim Language	Library Example
13(a)	**obtaining** an item having an RFID element associated therewith;	A staff member gathers a book from a library cart.
13(b)	using the portable RFID device to interrogate the RFID element and obtain information therefrom; and	The staff member uses the handheld device to scan the RFID tag in the book and gather information stored on the tag such as title, author, etc.
13(c)	having a user input information to the RFID device as to that item	The staff member notices, for example, that the book is damaged and inputs that "custom information" into the device.

In the specification, these steps are described beginning at column 17, line 61. As used in this claim, "obtaining" is described in terms of gathering books from various locations for scanning:

> [T]he hand-held device could be used to provide additional information about a specific item once the item has been ***obtained*** and its RFID tag scanned by the RFID device. For example, library staff may ***collect*** materials that have been used in the library, and scan those materials…. The operator simply reads the RFID tags of the items ***as they are collected*** from the various locations in the library at which they were used. ***As items are collected***, the operator can also indicate from where the items were collected….

Ex. B, '870 patent, 18:7-18 (emphasis added). From this description, a POSITA would understand that "obtaining" as appearing in this claim is directed to the use of the device wherein a library staff member collects or gathers books from, for example, various tables, carts, or carrels throughout the library and scans their RFID tags.

This understanding is further supported by the common dictionary definition for this term: "to come into possession of; get, acquire, or procure, as through an effort or by a request." Ex. N, *The Random House Dictionary, 2d ed., unabridged, 1987.* It is the elements of physical effort and possession by a library staff member that 3M seeks to avoid in proffering its construction for this term. EnvisionWare's construction of "obtaining," therefore, is correct because it remains true to the patentee's use of the term in the claim and in the specification.

b. 3M has no basis for seeking an expanded construction of "obtaining" that includes "identifying" or "selecting."

3M's construction is incorrect in view of the plain language of the claims, particularly the patentee's use of "obtain" elsewhere in claim 13. In addition to "obtaining" in claim element 13(a), element 13(b) shown above recites that the device is used to "obtain" information from RFID elements. 3M's construction for "obtaining" cannot be reconciled with the patentee's use of "obtain" in this second context because information is not "identified" or "selected" from RFID elements. EnvisionWare's construction, in contrast, is perfectly consistent with the patentee's use of "obtain" in this context: information is "gathered" from RFID elements through interrogation as recited in element 13(b).

3M's proposed construction is plainly motivated by its litigation strategy. 3M recognizes that EnvisionWare does not obtain books, nor does it encourage its customers to obtain books from various locations in a library for use with a handheld device. As a result, 3M misuses the claim construction process in an attempt to alienate its burden of

showing infringement by broadening "obtaining" to include "identifying" or "selecting," and does so without support from any source. By equating "obtaining" with "identifying" or "selecting," 3M will argue that any use of the accused device necessarily involves "identifying" or "selecting" an item.

The remainder of 3M's construction, "in a manner to facilitate the input of information to the RFID device as to that item," is meaningless verbiage meant to divert attention from 3M's clever use of "or" to render this term impermissibly broad. EnvisionWare's construction for this term is true to the ordinary meaning and the patentee's use of the term in the intrinsic record and should be adopted.

4. "input information to the RFID device as to that item" as used in claims 13, 14, and 15	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
"enter information to the RFID device as to the item"	*"input to the RFID device custom information observed by a user regarding the item scanned by the RFID device"*

The parties dispute different issues with respect to this claim phrase. 3M proposes substituting "enter" for the patentee's chosen word "input." The remainder of 3M's construction merely repeats the language of the claimed phrase. EnvisionWare objects to this near-synonymous substitution because it is clear from other claims that, where the patentee preferred the word "enter," that word or a form of it was selected. Ex. B, '870 patent at claim 21 ("***entering*** information into the RFID device describing the location of the item of interest").

The more important issue, however, is the meaning of the portion of the claim reciting "information … as to the item." EnvisionWare's construction addresses what

kind of information — according to this claim element — is inputted to the device. EnvisionWare's construction is supported by the specification and is taken directly from limiting statements made by the patentee during prosecution to overcome a rejection. *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) ("[W]here the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender.").

This phrase appears in the claims as element (c) of claim 13 and, as discussed above, the steps of this claim are discussed in detail in the written description beginning at column 17, line 61:

> [T]he hand-held device could be used to provide additional information about a specific item once the item has been obtained and its RFID tag scanned by the RFID device…. As items are collected, the operator can also indicate from where the items were collected by selecting from a list of locations, entering a location code or reading a 'location RFID Tag' that is associated with that location and would preferably be affixed to or near that location.

Ex. B, '870 patent, 18:7-22.

In fact, during prosecution, the patentee amended this claim element and explicitly narrowed the meaning of "information … as to the item" to "something easily observed by a person but not readily available to, for example, a computer database or to the RFID device, such as the fact that the item is damaged." Ex. O, '870 Patent Pros. Hist., Nov. 1, 2000 Amendment, p. 6. The patentee goes on to state that "the claimed method facilitates the entry of '***custom***' information concerning an item." *Id.* (emphasis added). In view of

the clear explanation of "information … as to the item" provided, the Court should adopt EnvisionWare's construction.

5. "inputting information" as used in claims 1, 2, and 4	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
"*entering, loading, or transferring information*"	*Plain and ordinary meaning*

The term "inputting information" appears in the context of the first element of claim 1, which recites "inputting information to the device describing a certain item or class of items." The dispute between the parties is whether this term carries its plain and ordinary meaning, as EnvisionWare proposes, or whether "inputting" in this claim includes *entering, loading, or transferring* as 3M proposes. As opposed to 3M's construction for this term, 3M's construction for "input information to the RFID device as to that item" suggests that the term "input" appearing in claim 13 means merely *enter*. However, claim terms "should be construed consistently with [their] appearance in other places in the same claim or other claims of the same patent." *Rexnord Corp. v. The Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001). For at least this reason, 3M's construction should be rejected.

C. Disputed Terms - '780 Patent

1. "integrated unit" as used in claims 1, 2, 3, 4, 5, 6, 7, 11 and 17	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
"a unit wherein the recited component parts are or can be combined into a unified structure"	*"recited components directly connected to a single housing"*

Each asserted claim of the '780 patent recites a "hand-held RFID device, comprising as an integrated unit" a set of components, e.g., "a computer," "an antenna," "an RFID reader," and a "display." The dispute between the parties is whether the intrinsic record demands that the recited components be "directly connected to a single housing," as EnvisionWare proposes.

The patentee clearly and unmistakably disavowed the full scope of "integrated unit" during the prosecution history in order to obtain the '780 patent. *See Omega*, 334 F.3d at 1327-28 (narrowing claim scope based on clear and unmistakable disavowal during prosecution history). The Examiner rejected these claims under 35 U.S.C. § 112 as containing subject matter which was not described in the specification. The Examiner provided the following rationale for this rejection:

> There is no cohesive teaching in the disclosure (specification and drawings) of the "integrated" hand-held RFID device recited in the claims. In particular, the specification fails to teach how the hand-held RFID reader shown in Figs. 13-14 is to be combined with a "computer" (possibly element 108 of Fig. 4) as an "integrated" hand-held unit, nor is there a discussion of any type of structure (i.e. housing) for forming the "integrated" unit and providing support for the presumably external components of the device (e.g. antenna, display) recited in the claims.

Ex. P, '780 Patent Pros. Hist., Feb. 26, 2001 Office Action, pp. 3-4. Thus, the Examiner stated that proper support for the term "integrated unit" required disclosure in the written description of a **specific type of structure** — i.e., a "housing" — to form the recited "integrated unit."

In order to obtain a patent, the patentee acquiesced to this requirement and amended the specification to introduce support for this term. Moreover, the patentee stated that the added Figures 15 and 16 "provide[] a graphical illustration ***of the claimed device***." Ex. Q, '780 Patent Pros. Hist., March 29, 2001 Amendment, p. 6 (emphasis added). Thus, the patentee represented to the PTO and the public that Figures 15 and 16 define the metes and bounds of the claims, and specifically the term "integrated unit."

Both Figures 15 and 16 (labeled versions reproduced below) illustrate a housing — as required by the Examiner — to form an "integrated unit." Specifically, the housing illustrated in Figures 15 and 16 directly connects computer 202, antenna 104, reader 102, and display 204 — which correspond to the recited components of claims 1 and 17.

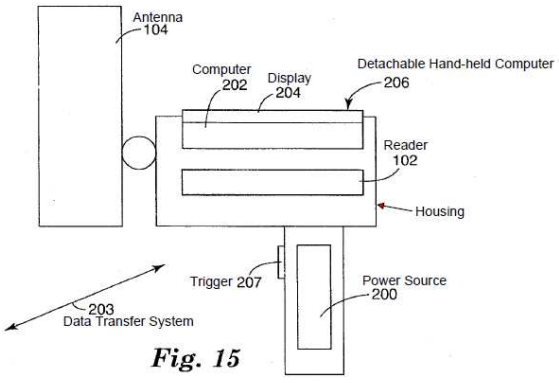


Fig. 15

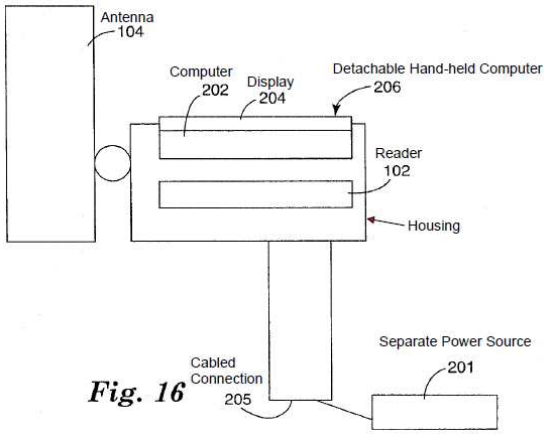


Fig. 16

Because the patentee's explicit statements during the prosecution history clearly and unmistakably tie the scope of the term "integrated unit" to Figures 15 and 16, the term "integrated unit" must be construed as "recited components directly connected to a single housing."

Realizing that the accused product does not have a housing to which the recited components are connected, 3M now seeks an overly broad construction in which "the recited component parts are or can be combined into a unified structure." While this overly broad construction reads on the embodiments depicted in Figures 15 and 16, it also impermissibly reads on additional embodiments that are not supported by the specification and that were **disclaimed** during the prosecution history.

For these reasons, the Court should adopt EnvisionWare's construction.

2. "substantially simultaneously" as used in claims 1, 2, 3, 4, 5, 6, 7, 11 and 17	
3M's Proposed Construction	**EnvisionWare's Proposed Construction**
"*in immediate or nearly immediate succession in time*"	*"in substantially overlapping durations"*

a. EnvisionWare's construction of "substantially simultaneously" relies on the ordinary and customary meaning that this term would have to a POSITA and is supported by the written description.

The parties' positions on the term "substantially simultaneously" are diametrically opposed. EnvisionWare's construction — "in substantially overlapping durations" — represents how a POSITA would construe the term based on its use in the claims, the meager guidance from the specification, and the state of the RFID industry at the time the patent was filed. In each independent claim, the term "substantially simultaneously" is used in the phrase "an RFID reader for reading information from multiple RFID tags

substantially simultaneously." This limitation is related to how the reader communicates with the RFID tags. *See* Bandy Dec. ¶¶ 35-42, 60-67. Therefore, the term "substantially simultaneously" must be viewed in the context of reader-tag communication.

An RFID tag is a small device (or chip) configured to store data. *Id.* ¶ 33. In many applications, RFID tags are affixed to objects and programmed to store information about the object. *Id.* ¶ 34. An RFID reader is a device specifically configured to talk to (read) information from the tags using a pre-determined language, called a protocol. *Id.* ¶ 33.

The '780 patent specification provides guidance for how to construe the term "substantially simultaneously." In one example, the patentee stressed to the public and the PTO that what sets the alleged invention apart is the ability of an RFID reader to process a group of items "essentially simultaneously" as opposed to the prior-art systems that read items one at a time (i.e., in succession):

> Another benefit of an RFID device is the ability to process multiple items at one time . . .. Whereas conventional devices having only optical bar code scanners can process only a single item presented to the bar code scanner at one time, a group of items having RFID elements may be processed ***essentially simultaneously***. This may be achieved by having multiple RFID interrogation sources (readers) mounted in or on the device, or by having a single high-speed RFID reader that possesses the multi-item identification algorithms.

Ex. C, '780 patent, 13:26-35 (emphasis added). In the patentee's view, therefore, conventional devices were deficient because they could only listen to (read) one device at a time (or in succession). RFID devices of the '780 patent, on the other hand, had the ability not only to listen to (read) but also to understand multiple devices talking at the

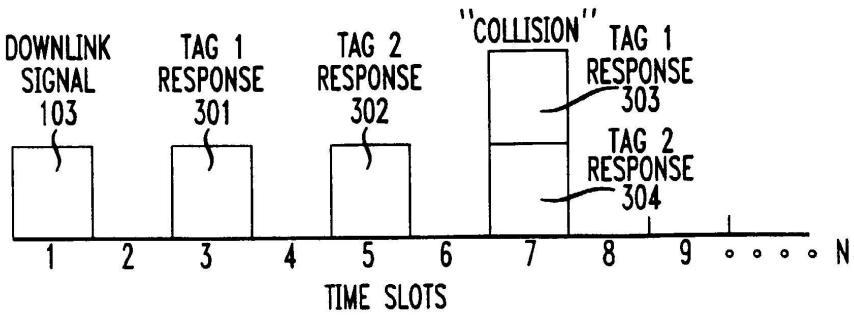
same time. The specification tells the public that this ability is achieved through "multi-item identification algorithms."

In another example, the patentee emphasized the tag's ability to assist the reader in reading tags "simultaneously." The specification states that an RFID tag "typically includes two components: an integrated circuit 12 and an antenna 14." *Id.* at 5:36-38. According to the patentee, one of the several functions of the integrated circuit is to "assist the hardware in resolving conflicts resulting from multiple tags responding to interrogation ***simultaneously***." *Id.* at 5:43-45 (emphasis added). This disclosure tells the public that the tag has logic to help the reader understand — i.e., "resolve" — multiple tags talking at the same time.

At the time of the invention of the '780 patent, a POSITA would have understood that pre-existing technology allowed multiple tags to be read in at least two different ways — *successively* or *substantially simultaneously*. Bandy Dec. ¶¶ 35-42. A POSITA, reading the specification, would have understood that the patentee intended to limit the scope of the claims to technology — such as, the multi-item identification algorithms and logic — that enable a reader to read tags "substantially simultaneously." *Id.* ¶¶ 62-64.

The RFID techniques that read tags successively as 3M proposes are equivalent to the operation of the conventional bar code scanners **distinguished** by the patentee in the specification. The most common *successive* reading technique in use at that time is referred to as time division multiple access ("TDMA"). *Id.* ¶ 37. In TDMA, each tag is assigned a time period (or slot) and can only talk to the reader in that slot. *Id.* In TDMA, the reader sends one or more commands to the tags (e.g., tell me your information), and

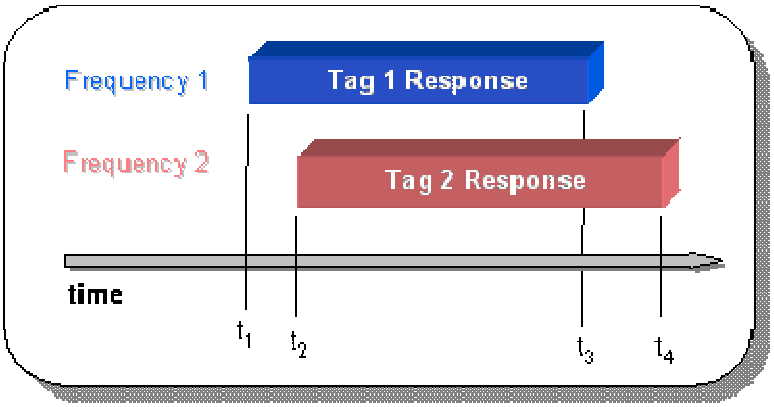
the tags respond to the reader in successive time slots and only in the their assigned slots — as illustrated in FIG. 3 of European Patent Application No. 0779520 (reproduced below). *Id.*



Reproduction of FIG. 3 of EP0779520.

This figure illustrates that *successive* RFID reading techniques process a single tag at a time, like the conventional bar code scanners. In contrast, the simultaneous, multi-item identification algorithms are designed to receive and process data from multiple tags at the same time.

Several techniques existed at the time of the invention of the '780 patent for reading tags *substantially simultaneously*, including frequency division multiple access ("FDMA") and code division multiple access ("CDMA"). Bandy Dec. ¶¶ 39-41. In FDMA, for example, the tags talk to the reader at different rates (frequencies). *Id.* ¶ 40. The reader uses the differences in these frequencies to differentiate two tags talking at the same time. *Id.* This technique is illustrated in FIG. 2 from the Bandy Declaration:



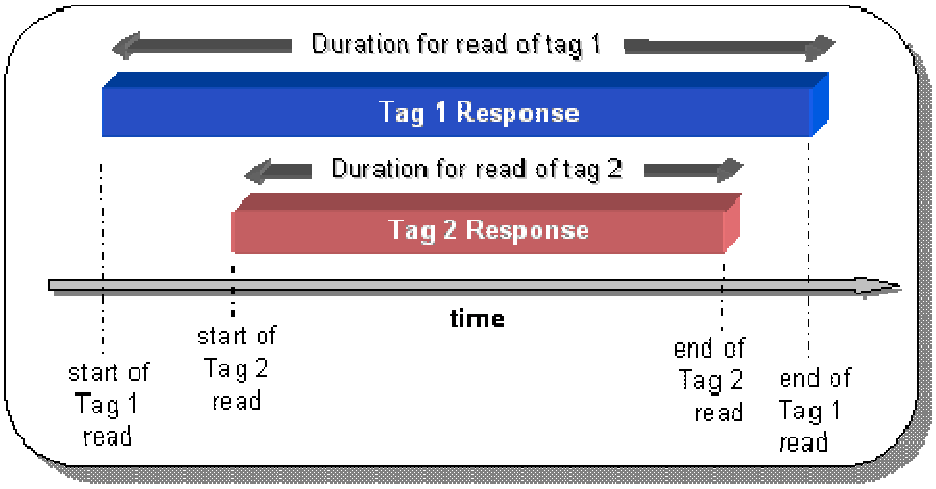
Based on the specification and knowledge of pre-existing communication techniques, a POSITA would understand the ordinary and customary meaning of "substantially simultaneously" to read on the pre-existing technology for reading tags simultaneously (e.g., FDMA or CDMA), and not on the pre-existing technology for reading tags successively (e.g., TDMA). *Id.* ¶ 64.

A POSITA would further understand that the inclusion of the word "substantially" in this claim term merely accommodates for the fact that, strictly speaking, real events almost never happen exactly simultaneously. *Id.* ¶ 65. "Expressions such as 'substantially' are used in patent documents when warranted by the nature of the invention, in order to accommodate the minor variations that may be appropriate to secure the invention." *Verve, LLC v. Crane Cams, Inc.*, 311 F.3d 1116, 1120 (Fed. Cir. 2002).

For example, in the context of RFID technology, a POSITA would understand that, as a matter of physics, an RF signal transmitted from a reader to each of a plurality of tags would likely arrive at each tag at slightly different times due to slight differences in the distance between the reader and each of the tags. Bandy Dec. ¶ 66. Similarly,

return signals from each of the tags to the reader, even if transmitted at precisely the same instants in time, would likely arrive at slightly different times again due to, for example, slight differences in the distance between each tag and the reader. *Id.* Thus, a POSITA would understand that, even when a reader is configured to read multiple tags using the pre-existing technology for reading tags simultaneously (e.g., FDMA or CDMA), the start time and stop time of the read of each of the tags may not occur at precisely the same instants in time.

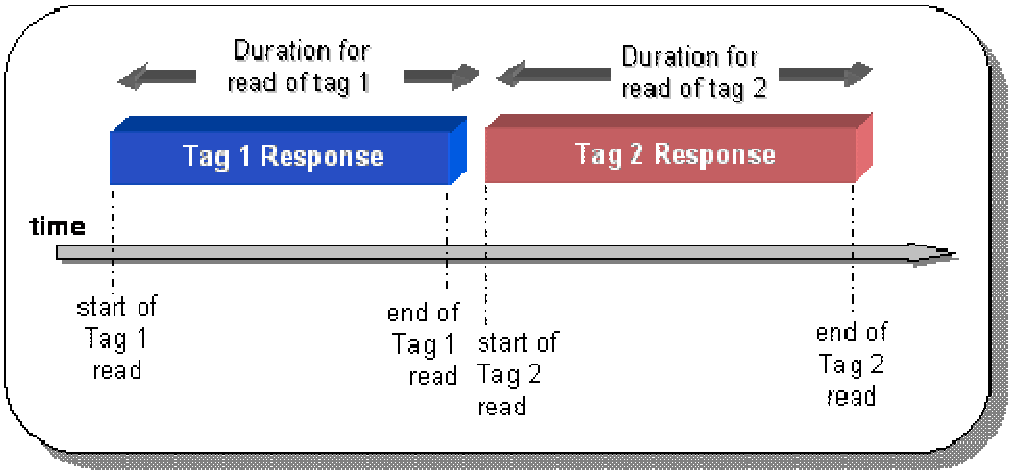
Accommodating for these minor variations between the start and stop times of the reads of each of the tags, a POSITA would understand that, when using FDMA or CDMA, the duration of the reads of the tags would nonetheless substantially overlap—as illustrated in Figure 4 of the Bandy Declaration (reproduced below). *Id.* ¶ 67. Based on the plain language of the claims, therefore, a POSITA would interpret "substantially simultaneously" to mean *in substantially overlapping durations*. *See Ecolab, Inc. v. Envirochem, Inc.*, 264 F.3d 1358, 1366 (Fed. Cir. 2001) (the term "substantially" ordinarily "means considerable in extent . . . or largely but not wholly that which is specified.").



Reproduction of Figure 4 of the Bandy Declaration

b. 3M's construction of "substantially simultaneously" ignores the ordinary and customary meaning of both "simultaneously" and "substantially."

Stripped of its excess verbiage, 3M's construction essentially defines "substantially simultaneously" as *in succession*. It defies common usage, however, to suggest — as 3M's construction does — that simultaneous events also happen in succession. The inclusion of the term "substantially" does not pervert the meaning of the term "simultaneously" to encompass successively. To do so would read the term "simultaneously" completely out of the claim. Indeed, a graphical depiction of successive durations, as illustrated in Figure 5 of the Bandy Declaration (reproduced below), shows that successive durations are not "substantially simultaneous[]." *See* Bandy Dec. ¶ 68. Simply put, events that occur in succession happen one after another, not simultaneously. This is precisely the deficiency that the specification tells us the alleged invention overcame.



Reproduction of Figure 5 of the Bandy Declaration

3M's construction contradicts the customary and ordinary meaning of both the terms "simultaneously" and "substantially" and, therefore, is without merit. Thus, the Court should reject 3M's construction and adopt EnvisionWare's construction that "substantially simultaneously" means *in substantially overlapping durations*.

3. "a trigger for intermittent activation of the device" as used in claims 11 and 17

3M's Proposed Construction	**EnvisionWare's Proposed Construction**[5]
No construction is required; the phrase carries its plain and ordinary meaning.	"a trigger" — a projecting tongue or lever "intermittent activation of the device" — placing the device into a separate, power-saving mode of operation as opposed to a continuous mode of operation

The dispute between the parties is whether the intrinsic record requires that the terms "a trigger" and "intermittent activation of the device" be construed as EnvisionWare proposes, or whether these terms need no construction as 3M proposes. Because the patentee limited the term "trigger" to that depicted in Figure 15 and because

[5] The parties have agreed that this term should not be construed according to 35 U.S.C. § 112, ¶ 6.

the specification defines the scope of "intermittent activation," EnvisionWare's construction is correct.

a. Statements made during the prosecution history narrow the term "trigger" to projecting tongue *or* lever.

The prosecution history requires that "trigger" be construed as a *projecting tongue* or *lever*. *See Omega*, 334 F.3d at 1327-28 (narrowing claim scope based on clear and unmistakable disavowal during prosecution history). As set forth above, to overcome the Examiner's rejection, the patentee explicitly stated to the Examiner during the prosecution history that Figure 15 "provides ***a graphical illustration of the claimed device***." Ex. Q, '780 Patent Pros. Hist., March 29, 2001 Amendment, p. 6 (emphasis added). Thus, by the patentee's own admission, the inventions covered by the claims of the '780 patent — and, germane to the present analysis, the scope of the term "a trigger" — are illustrated in Figure 15. *See Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc.*, 222 F.3d 951, 957 (Fed. Cir. 2000) ("The prosecution history constitutes a public record of the patentee's representations concerning the scope and meaning of the claims, and competitors are entitled to rely on those representations when ascertaining the degree of lawful conduct, such as designing around the claimed invention.").

As illustrated in the marked-up version of Figure 15 reproduced below, this figure depicts a trigger 207 as a projecting tongue or lever. Because the patentee's own statements during the prosecution history clearly and unmistakably tie the scope of the claimed invention to Figure 15, the term "a trigger" should be construed accordingly.

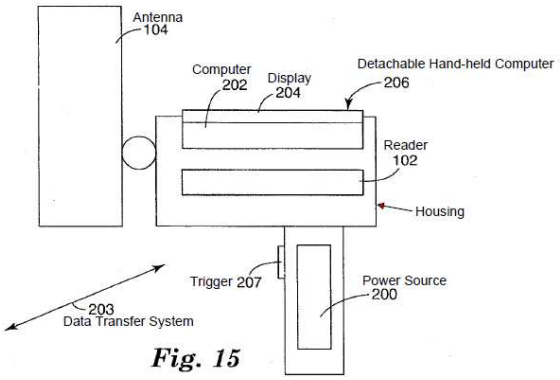


Fig. 15

b. "Intermittent activation" has a well-understood meaning to a POSITA.

A proper determination of the ordinary and customary meaning of the term "intermittent activation of the device" requires an understanding of what a POSITA would have known about RFID technology at the time of the invention of the '780 patent. *See Phillips*, 415 F.3d at 1312-13. At the time of the invention of the '780 patent, a POSITA would have understood that the industry was researching and implementing readers having at least two modes of operation:

(i) a fully powered mode; and

(ii) an intermittent mode of operation in which consumption of reader power was reduced.

Bandy Dec., ¶ 43. Indeed, even the Background section of the '780 patent concedes that pre-existing readers had at least two modes of operation by stating that "information could be obtained [from an RFID tag] by electronically interrogating the [RFID] tag, either ***intermittently or continuously***." Ex. C, '780 patent, 1:34-35 (emphasis added). The intermittent mode of operation reduced the power consumption of the readers and was especially important for portable readers, like the ones claimed in the '780 patent.

Bandy Dec., ¶¶ 44-48. Based on this understanding of the pre-existing technology, a POSITA would understand the ordinary and customary meaning of "intermittent activation of the device" to be *placing the device in a separate, power-saving mode of operation as opposed to a continuous mode of operation*.

This interpretation of "intermittent activation of the device" is supported by the specification.

> A hand-held RFID device can interrogate and identify RFID-tagged items whenever it is activated within range of the items. Intermittent activation can be provided by, for example, a trigger associated with the device, so that the elapsed time for which power is required for the RFID device is minimized.

Ex. C, '780 patent, 16:8-13; *see also* Bandy Dec. ¶ 71. The first quoted sentence above indicates merely that a general mode of operation — an "activated" mode of operation — enables a hand-held RFID device to interrogate RFID-tagged items. Bandy Dec. ¶ 71. The second sentence indicates that a special type of mode of operation — an "[i]ntermittent activation" mode of operation — reduces the power consumption of the hand-held RFID device. *Id.*

Thus, EnvisionWare's construction that "intermittent activation of the device" as *placing the device in a separate, power-saving mode of operation as opposed to a continuous mode of operation* is the proper construction.

V. CONCLUSION

For the above reasons, respectfully, the Court should adopt EnvisionWare's claim constructions.

DATED: September 22, 2010

__s/ Kevin D. Conneely_____

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